

REMARKS

Initially, Applicant would like to express his appreciation to the Examiner for the detailed Official Action provided on January 16, 2004.

Upon entry of the above amendments, claim 1, 3, and 5 will have been amended. Thus, claim 1-6 are currently pending.

In the second paragraph of page 2 of the Official Action, the Examiner has objected claims 1, 3, 5 and required appropriate corrections in these claims. In accordance with the Examiner's suggestion, Applicant has changed "a" to "the" in claims 1, 3 and 5. Thus, the objections to claims 1, 3, and 5 are believed to be overcome, and Applicant respectfully requests withdrawal of the objections.

In the fourth paragraph of page 2 of the Official Action, the Examiner has rejected claims 1-4 under 35 U.S.C. §102(b) as being anticipated by Iwamura (U.S. Patent No. 5,534,928). Applicant respectfully traverses the rejection of claims 1-4 under 35 U.S.C. §102(b).

Initially, Applicant notes that claim 1 has been amended to include the limitation of "wherein the second buffer is the only buffer for displaying the image in the display order." Support for this amendment can be found in the "Background of Invention" at page 3, line 6-8, which states: "... under some circumstances, it is necessary to display pictures stored in one of the decoding buffer continuously, therefore the above-mentioned reordering method is not applicable."

Support can also be found in Fig. 4, which illustrates the second buffer is the only buffer for storing the display pictures, including the B-pictures and the virtual pictures corresponding to the I-pictures, and the virtual pictures corresponding to the

P-pictures in the display order for displaying.

Additionally, a sign “display sequence” is shown on the top of the column of “second buffer,” and the column indicates the order of displaying of each images. In this embodiment shown in Fig. 4, the order of displaying is “I0 - B1 - B2 - P3 - B4 - B5 -B11 - P12.” Meanwhile, no images are displayed directly from the first and the third buffers. Namely, the order of displaying is the same as the order of being stored in the second buffer, thus it is clear that the second buffer only works for display.

Furthermore, support can be found in one of the preferred embodiments which is associated with Fig. 4 and described at page 10, line 8 through page 11, line 2, which states, “... Please refer to Fig.4, in one preferred embodiment of the present invention, upon receiving picture P6, decode picture P6 and store the decoded picture P6 into first buffer 131. In response to the parameter 105, generate a virtual picture using P3 stored in the third buffer 133, send the virtual picture to the second buffer 132. Subsequently, decode the received B4 and B5, send the decoded B4 and B5 directly to the second buffer 132, the display controller 140 will use the pictures stored in the second buffer 132 for display. The next picture received is I9, decode I9 and store the decoded I9 in the third buffer 133, also in response to the parameter 105, generate a virtual picture using P6 stored in the third buffer 131, send the virtual picture to the second buffer 132. The following B7 and B8 will be decoded, and the decoded B7 and B8 will be sent to the second buffer 132 directly, the display controller 140 uses the pictures stored in the second buffer 132 for display thereafter.”

Additionally, other support for this amendment appears in the specification at page 7, lines 5-6, which state “the present invention comprises a display controller 140 connecting to the second buffer 132 for displaying the virtual picture 115,” at page 8, lines 15-17, which state “Step 215 uses a decoded picture pre-stored in a third buffer 133, responsive to a parameter 105, generates the first virtual picture 115 ~~and~~ 50 ~

and send it to a second buffer 132 for display,” and at page 9, lines 3-5 and 7-9.

Next, Applicant will explain the difference between the prevent invention and Iwamura. The present invention discloses a method for reordering a decode order into a display order of an image. The decode order includes an I-picture (intra-coded picture), a P-picture (predictive-coded picture), and a B-picture (bi-directionally-predictive coded picture). The method first determines a first picture of the compressed picture sequence. If the first picture is I-picture, the first picture is decoded and stored into a first buffer. Then a first virtual picture is obtained according to a predetermined manner and is sent to a second buffer for display, wherein the second buffer is the only buffer for displaying the image.

The method subsequently determines a second picture. If the second picture is P-picture or I-picture, the second picture is decoded and stored into a third buffer. A second virtual picture is obtained according to the predetermined manner and also sent to the second buffer for display.

Iwamura discloses an apparatus and method for decoding a plurality of video signals and detecting errors in encoded video signals to be either correctable or uncorrectable (Abstract). The apparatus includes three frame memories 27a-c, and a frame memory switch 27d. The frame memories 27a-c are adapted to respectively receive data from an adding circuit 25 representing I, P and B pictures and to store such data therein. The frame memory switch 27d is adapted to changeover in response to a control signal received from a frame interpolation control circuit 43 so as to couple one of the frame memories 27a-c to a D/A converter 28 (col. 7 line 64 to col. 8 line 3). Therefore, the apparatus of the Iwamura uses three different memories, the frame memories 27a-c, to store pictures and use a switch, the frame memory switch 27d, to selectively retrieve pictures according to the display order.

In the background of the present invention, Applicant discloses: “In a common

display and decode control flow, reordering is done by storing pictures of decode order into different decoding buffer, then the display system retrieves the pictures stored in different buffers according to the display order.” Applicant also discloses: “But under some circumstances, it is necessary to display pictures stored in one of the decoding buffer continuously, therefore the above-mentioned reordering method is not applicable.” Accordingly, Iwamura is apparently included in the prior art which the present invention is going to improve.

Moreover, Iwamura needs a switch to change over in response to a control signal to selectively output the data in one of the three buffers or memories, but the presently claimed invention does not use any switch to selectively output the data stored in the first buffer or the third buffer.

As mentioned above and in the specification, the second buffer of the present invention is the only buffer for displaying images, which is not disclosed in Iwamura. Thus, it is apparent that the structure of the Iwamura is different from that of the presently claimed invention. Therefore, since Iwamura does not disclose each and every element of applicant’s claimed invention, Applicant respectfully submit that the rejection of claim 1 under 35 U.S.C. §102(b) is improper and should be withdrawn, for this reason alone, as well as for all of the above reasons.

Applicant also submits that dependent claims 2-4, which are patentable at least due to their dependency from claim 1 for the reasons noted above, recite additional features of the invention and are also separately patentable over the prior record.

In the sixth paragraph of the Official Action, the Examiner has rejected claims 5 and 6 under 35 U.S.C. §103(a) as being unpatentable over Iwamura as applied to Claims 1-4 and further in view of Tahara (US 5,473,380). However, even assuming, arguendo, that the teachings of Tahara can be properly combined with the teachings of

Iwamura, the combination would not result in Applicant's claimed invention since Tahara does nothing to provide the deficiencies of Iwamura noted above with respect to claim 1. Thus the rejection of claim 5 and 6 under 35 U.S.C. §103(a) is improper for this reason alone, and withdrawal thereof is respectfully requested.

SUMMARY AND CONCLUSION

In view of the foregoing, it is submitted that the present amendment is proper for entry and that none of the references of record either taken alone or in any proper combination thereof, render obvious the Applicant's invention as recited in each of claims 1-6. The applied references of record have been discussed and distinguished, while significant claimed features of the present invention have been pointed out.

Accordingly, entry and consideration of the present amendment, reconsideration of the outstanding Office Action, and allowance of the present application and all of the claims therein are respectfully requested and now believed to be appropriate.

Any amendments to the claims which have been made in this amendment, and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attached thereto.

Should the Examiner have any questions concerning this response, or the present application, the Examiner is respectfully requested to contact the undersigned at the below-listed telephone number.

Respectfully submitted,
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